



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,431	01/12/2001	Frank M. Simonutti		2882

7590 09/30/2003

John W. Chestnut, Esq.
Greer, Burns & Crain, Ltd.
Suite 2500
300 South Wacker Drive
Chicago, IL 60606

EXAMINER

LEE, EDMUND H

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/760,431	SIMONUTTI ET AL.
Examiner	Art Unit	
EDMUND H. LEE	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 September 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9 . 6) Other: _____ .

DETAILED ACTION

1. The information disclosure statement filed 10/2/03 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the PTO 1449 submitted therewith was not properly filled out. The names and dates of the US patents must be provided on the form. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "viscosity...1000 cps" (cl 4, ln 2) is indefinite because a temperature has not been given. A temperature must be given in order to appreciate the viscosity value.

Correction is required.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz (USPN 5849168) in view of Hoy et al (USPN 4727094). In regard to claim 1, Lutz teaches the claimed process including forming a cover on a golf ball (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); positioning a spherical uncovered golf ball product in the center of a mold, the mold having a spherical mold surface (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); closing the mold around the golf ball product (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); mixing a polyurethane prepolymer and a curing agent to form a thermoset reaction mixture (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); injecting the reaction mixture into the mold to cover the golf ball product therein (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); allowing the reaction mixture to gel and form a golf ball (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); and opening the mold and removing the golf ball after the injecting step (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39). However, Lutz does not teach removing the golf ball within about 10 to 60 seconds after the injecting step. Hoy et al teach demolding a polyurethane RIM product within 15 seconds after the molding operation without sacrifice in further processing or in the resulting properties of the polyurethane (col 17, Ins 40-50). Lutz and Hoy et al are combinable because they are analogous with

respect to RIM with polyol and isocyanate prepolymer to form a polyurethane product. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polyol of Hoy et al in the process of Lutz in order to reduce the cycle time of Lutz without sacrificing the quality of the golf balls. In regard to claims 2-12, Lutz teaches using a mold having projections for forming dimples in the cover of the golf ball (col 8, Ins 45-53); using a wound golf ball core (col 4,Ins 36-43); using a solid core (col 4, Ins 36-43); using a uncovered golf ball product having a solid core and a mantle layer (col 4, Ins 36-43); and using a polyurethane prepolymer selected from the claimed group (col 5,Ins 20-27). However, Lutz does not teach injecting the mixture within 0.5 to 10 seconds; using a polyurethane prepolymer having the claimed viscosity; using a curing agent having the claimed viscosity; using a golf ball product having a solid core and a lattice structure over the core; and removing the golf ball about 45 minutes after the injecting step. In regard to injecting the mixture within 0.5 to 10 seconds, injection duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to complete the injecting step of Lutz within the claimed duration in order to reduce cycle time without sacrificing quality. In regard to using a polyurethane prepolymer having the claimed viscosity, such is a mere obvious matter of choice dependent on the material availability and of little patentable consequence to the

claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed prepolymer having the claimed viscosity in the process of Lutz in order to facilitate the molding of the golf ball. In regard to using a curing agent having the claimed viscosity, such is a mere obvious matter of choice dependent on the material availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed curing agent having the claimed viscosity in the process of Lutz in order to facilitate the molding of the golf ball. In regard to using a golf ball product having a solid core and a lattice structure over the core, such is a mere obvious matter of choice dependent on the material availability and desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed uncovered golf ball product is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed uncovered golf ball product in the process of Lutz in order to ensure bonding between the coating and the uncovered golf ball product. In regard to removing the golf ball about 45 minutes after the injecting step, such is taught by the above combination of Lutz and Hoy et al.

Art Unit: 1732

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz (USPN 5849168) in view of Hoy et al (USPN 4727094). In regard to claim 13, Lutz teaches the claimed process including forming a golf ball product (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); mixing a polyurethane prepolymer and a curing agent to form a thermoset reaction mixture (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); injecting the reaction mixture into a closed mold having a cavity (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); allowing the reaction mixture to gel and form a molded product (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); and opening the mold and removing the molded product after the injecting step (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39). However, Lutz does not teach removing the golf ball within about 10 to 60 seconds after the injecting step. Hoy et al teach demolding a polyurethane RIM product within 15 seconds after the molding operation without sacrifice in further processing or in the resulting properties of the polyurethane (col 17, Ins 40-50). Lutz and Hoy et al are combinable because they are analogous with respect to RIM with polyol and isocyanate prepolymer to form a polyurethane product. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polyol of Hoy et al in the process of Lutz in order to reduce the cycle time of Lutz without sacrificing the quality of the golf balls. In regard to claim 14, injection duration is well-known in the

Art Unit: 1732

molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to complete the injecting step of Lutz within the claimed duration in order to reduce cycle time without sacrificing quality. In regard to claim 15, such is taught by Lutz (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7, Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39).

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kennedy, III et al (USPN 6290614). Kennedy, III et al teach all of the claimed limitations.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutz (USPN 5849168) in view of Weber et al (USPN 4218543). In regard to claim 16, Lutz teaches the claimed process for forming a golf ball (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); providing an isocyanate (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); providing a polyol (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); mixing the first reactant and the second reactant together (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); providing a molding assembly defining a molding cavity and having a golf ball component positioned within the molding cavity (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); introducing the first and second reactant into the molding cavity (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); and forming a cover layer about the golf ball component thereby producing the golf ball (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39). However, Lutz does not teach heating the first reactant to about 80F to about 130F; and heating the second reactant to about 80F and about 150F. Weber et al teach molding a polyurethane product by RIM (col 12, Ins 29-40); and using reactants, polyol and isocyanates, having a temperature of from 10C to 50C. Lutz and Weber et al are combinable because they are analogous with respect to

forming a polyurethane product from a polyol and an isocyanate by RIM. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of heating the reactants to about 10 to 50C into the process of Lutz in order to facilitate the injection of the reactants into the mold of Lutz. In regard to claims 17-19, Lutz teaches using a polyol (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); heating the mold assembly to about 140F to 170F (col 3, Ins 18-21; col 4, Ins 16-35; col 5, Ins 20-26; col 7,Ins 1-13 and 25-30; and col 8, Ins 8-13, 19-23, and 35-39); and adding a density-increasing filler to at least one of the reactants (col 5, In 59-col 6, In 51).

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Lutz (USPN 5849168). Lutz teaches the claimed golf ball.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 703.305.4019. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 703.305.5493. The fax phone

Art Unit: 1732

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.

Edmund H. Lee 9/22/03
EDMUND H. LEE
Primary Examiner
Art Unit 1732

EHL